

# Notice of Allowability

Application No.

10/005,302

Examiner

Jason Mitchell

Applicant(s)

RAMASAMY ET AL.

Art Unit

2193

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to communications filed on 2/18/05.
2. ☒ The allowed claim(s) is/are 1-12.
3. ☒ The drawings filed on 18 February 2005 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

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### REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance:

While the closest prior art (US 6,721,875 to McCormick et al.; "Fine-Grained Dynamic Instrumentation of Commodity Operating System Kernels" by Tamches et al.) indicates that methods of inserting instruction bundles were known in the art (col. 26, lines 33-37 'a dynamically generated code sequence which is to be inserted at a patch point'; Fig.

5: Code Splicing), but do not teach or suggest, alone or in combination:

Changing the predicated branch-call instruction to a predicated branch instruction that targets a fifth bundle ... creating a third bundle and inserting the third bundle after the first bundle, ... creating a fourth bundle and inserting the fourth bundle after the third bundle, the fourth bundle including a branch instruction that targets the second bundle; creating the fifth bundle and inserting the fifth bundle after the fourth bundle, the fifth bundle including a branch-call instruction having a target address equal to the target address of the predicated branch-call instruction

as is recited in independent claims 1 and 8. Nor do the references teach or suggest:

Inserting in the executable program ... a third bundle followed by a fourth bundle, the third bundle including an unpredicted branch-call instruction having the target address of the predicated branch-call instruction, and the fourth bundle having an unpredicted branch instruction having a target address that references the second bundle; changing the target address of the predicated branch-call instruction to reference the third bundle

as is recited in independent claims 9 and 12. Further the closest art of record does not teach or suggest inserting instruction bundles in response to the specific conditions set forth in the claims 1, 8-9 and 12 (i.e. 'instrumentation of ... a first bundle of instructions having a predicated branch-call instruction followed by a call-shadow instruction'). For these reasons independent claims 1, 8-9 and 12 and consequently, dependent claims 2-7 and 10-11 are allowable over the prior art of record.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 6,237,077 to Sharangpani et al.; US 6098165 to Panwar et al; US 6,829,722 to Lin; US 6,622,300 to Krishnaswamy et al. US 2002/0104074 to Hunde et al.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Mitchell whose telephone number is (571) 272-3728. The examiner can normally be reached on Monday-Thursday and alternate Fridays 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason Mitchell  
4/7/05

  
**KAKALI CHAKI**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**